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The EXTENSION ANIMAL HUSBANDMAN

UNITED STATES DEPARTMENT
OF AGRICULTURE
WASHINGTON,
D.C.

Serial No. 18

June, 1930.

THE FIRST EXTENSION WORKER

The first American record we have of agricultural extension work is found in the history of the Plymouth Colony which tells us that the name of the extension agent was "Squanto" and that he was an Indian. We read thus: "They sowed six acres of barley and pease and set twenty acres of corn, making use of 10 bushels which they had brought from subterranean storehouses of the Indians. In this work much assistance was rendered them by Squanto, a faithful Indian, who taught them how to plant corn, manure with fish, and hill it."

UNITED STATES DEPARTMENT OF AGRICULTURE
Washington, D. C.

THE EXTENSION ANIMAL HUSBANDMAN

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the Office of Cooperative Extension Work, Cooperating.
C. D. Lowe, Senior Extension Animal Husbandman.

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THE HOOSIER HORSE EXTENSION PROGRAM

by

P. T. Brown, Indiana Extension Service

- - -

The Indiana horse extension program consists of three distinct activities, which are at the same time closely related. They are the Hoosier Gold Medal Colt Club, Multiple Hitch Project and Colt Breaking Demonstrations. These three projects are carried on for the purpose of teaching Indiana farmers better methods of breeding, feeding and using draft horses. The horse situation in Indiana is no doubt very similar to that found in most of the other Corn Belt States. Our farmers are using too many mediocre and inferior stallions; they are failing to feed and develop their colts during the first winter and second summer; they have largely abandoned the once popular community colt shows which were a potent factor in stimulating interest in horse production, and they are working their horses in small and oftentimes inefficient units.

The Gold Medal Colt Club was the first extension project started and is the major project in our program. It is intended to demonstrate the value of a good breeding stallion, the importance of proper feed and management during the colt's critical period and to stimulate local and State horse shows. No doubt most of the animal husbandry extension men in other States are familiar in a general way with our Gold Medal Colt Club project. The colts are nominated while they are still nursing foals. Their final weights are taken on exactly the same date one year after nomination. If, during this year, the colt has made a gain of 650 pounds, it is permitted to show during the fall show season in a gold medal colt club class at the county or State fair. In these classes there must be exhibited at least five colts that have been nominated and have made their gains in this project. A gold medal is awarded to the first-prize colt in each of these classes, a silver medal is given to the second-prize colt and a bronze medal to the third-prize colt. This project has been going for five years and now has an enrollment of 300 yearlings. Without going into details regarding the results that have come from this project, it will be sufficient to say that it has revived the showing of horses at many of our county fairs, and has done a great deal to draw attention to the best breeding stallions in the various counties. There has also been created a special Gold Medal Colt Club Division at our State Fair, with classes for both purebred and grade yearlings.

The methods used in carrying on this project are somewhat similar to those employed in extension projects in other States. A circular letter is one of the most frequently used methods. It announces to members and horsemen generally the date for nominating colts and the time for taking final weights of colts, and carries information regarding feeding and management.

Local leaders have also played an important part in securing new members from year to year, in promoting the activities of the club during the year, and in conducting the numerous colt shows that have originated because of this project. For securing new members in the club, stallion owners make good local leaders. They are in closer touch with mare owners than are the county agents and can be of great assistance to the county agent in locating foals suitable for nomination. The stallion owner in many cases will actively assist in weighing the foals and in various other activities of the club. The more enterprising stallion owners are greatly interested in seeing their stallions represented in the local clubs by groups of high-class foals, and will spend considerable time along this line.

After the colts have been weighed during the time specified for nomination, which in our State is during the month of July, the specialist is then confronted with the problem of keeping up interest and broadcasting information to the club members. One method which I have always used, and for which I may be criticised by some, has been to make personal visits of inspection to the farms of all cooperators in the various counties. I have used this method because it has been found that it is rather difficult to get all the members of the club to turn out for a centrally located meeting. I have also used it because farmers like to discuss their personal problems in connection with their individual colts. One day spent in each county is usually sufficient time for the county agent and specialist to see all the colts nominated in that county. The close personal contact thus established with colt owners has been a big factor in keeping up the interest in the club. Many men who were undecided as to whether or not they would exhibit their colts at the fair have decided to show because of the personal interest shown by the county agent and specialist in visiting them on their farms.

Once during each year, where practicable, the colt owners within a given county are taken on a tour. This has been found very productive of desirable results. A tour is usually arranged by the county agent and his local leaders of the club. These men map out the route to be followed and arrange other details such as the publicity, the noon lunch, demonstrations to be given, and other

educational features. On these tours each colt owner has an opportunity of seeing how his colt compares with the others. He also has an excellent opportunity to observe the methods used by the other club members and the results obtained. The tour also gives the specialist an opportunity for discussing with the members the approved methods of feeding and management.

Demonstration meetings are another means of putting across this project. Demonstrations I have given before Gold Medal Colt Club members have been on methods of foot trimming, decorating for the show, and showing in the show ring. The average farmer is very loath to spend much time in trimming feet on his foals or yearlings. Many of them do not know how to trim feet and many of them are afraid to handle the feet of their colts. Demonstrations have been very productive of good results along this line. Furthermore, it has been found that after a farmer has been in the club one year and has exhibited his yearling at a gold medal colt club show, he has become thoroughly convinced of the necessity for the colt's feet being properly trimmed. It has also been observed that the new members coming into the club are easily influenced to trim feet because of their contact with older members who are sold on the necessity for foot trimming.

Of course publicity is one of the methods used in furthering all extension projects, and it has a large place in promoting the Gold Medal Colt Club. It is used not only by the specialist but by the county agent and needs no further mention in this article.

A great many of the specialists in other States are now conducting multiple-hitch demonstrations and are thoroughly familiar with the best methods of conducting this piece of work. I have found it very desirable and most efficient to carry enough equipment in my car to put on a good demonstration, rather than depending upon the farmer to furnish all the equipment. My experience has been that few farmers have enough large clevises to fit up a Talkington evener for a six or eight-horse team. Neither do most farmers have timber for making larger eveners nor saws and bits sharp enough for use in this connection. I therefore carry a supply of clevises and also an evener with me and can start a demonstration meeting in twenty minutes after arriving at the farm. Of course I carry a supply of buck ropes and lead chains, and in many cases a set of "quick-hitch" harness.

It has been demonstrated that the multiple-hitch project lends itself to the campaign method as readily as any other piece of extension work. V. J. Mann, county agent at Frankfort, Clinton County, Indiana, in 1929 carried out a very successful multiple-hitch campaign.

This campaign was carefully planned, following a survey of the entire county. Circular letters were sent out carrying illustrations of the common four-abreast hitch and pointing out the undesirability of that method. Another letter showing the desirable tandem hitches and announcing where demonstration meetings would be held was also sent out. After the demonstrations had been given a very careful "follow-up" was carried out by Mr. Mann and the result was a large number of farmers making use of the multiple hitches.

Another method used in putting across the multiple-hitch project has been the community plowing match. This was tried out for the first time in the Mulberry community of Clinton County in the fall of 1929. This community had several farmers living within a small radius and using various-sized multiple-hitch teams. It was decided that a public plowing match would be a good way of letting the public see these multiple hitches in actual operation under competitive conditions. Accordingly, a local group of business men and community leaders was called together and committees appointed for the various details of organization. The finance committee soon raised enough to offer prizes of $15,$10,$5,$5,$5 and $5 in a class for four-horse teams; $20, $15,$10,$5,$5, and $5 in a class for six-horse teams and $30,$15,$10, $5,$5, and $5 in a class for eight-horse teams. The committee on entries was successful in obtaining entries enough in each class to guarantee a worth-while contest. Another committee obtained a sod field for the plowing and staked off the lands for the various entrants. Extremely wet weather made it necessary to postpone the plowing match for one week, and undoubtedly this decreased the attendance very materially. As it was, however, the attendance was estimated at 1,600 people from various parts of Indiana including some from Illinois and Ohio. These people stayed during the entire day and manifested keen interest in studying the various hitches and in noting the ease with which the local farmers were able to drive the large teams with only two lines. The eight-horse teams used three-bottom tractor plows, and this was also a great interest to the spectators. I consider the plowing match as one of the most potent and far-reaching forms of multiple-hitch demonstration that can be devised, and am planning to use it in several other communities this year.

One other activity carried on in our horse extension program has been the colt-breaking demonstrations. These demonstrations have been used as a part of the multiple-hitch demonstrations in several instances, rather than as a separate activity of itself. A concrete example will serve to illustrate the point I have in mind. County Agent L. E. Thorne of Rensselaer, Jasper County, Ind., has a large number of farmers owning from eight to sixteen head of work horses. Few of them work more than five horses per team, and he had great

difficulty in getting these men to attend extension meetings of any type. Therefore, he arranged for an all-day meeting, announcing that the forenoon would be devoted to the breaking and hitching of a wild, unbroken four-year-old native colt, and the afternoon would be spent in demonstrating multiple hitches, including a nine-horse hitch on a tractor plow. Although farmers were somewhat busy with their spring work, he had an attendance of 75 for the forenoon meeting and 125 in the afternoon. The colt-breaking proved of great interest and practical value to those in attendance and served to stimulate a great deal of interest in the multiple-hitch demonstration. In other words, the colt-breaking demonstration in our extension program has filled the bill as a curtain raiser rather than an activity or project of itself.

In this article I have tried to set forth the method used in our program, rather than to describe in detail the projects themselves. I believe it is entirely proper to say that farmers and county agents will work just as energetically in furthering a horse program as they will in any other extension program, provided (1) The program fits their needs; (2) good extension methods are used; (3) the specialist and other leaders use the same energy and enthusiasm that they employ in their other animal husbandry projects. Furthermore, the present economic status of the horse business is such that farmers are in a very receptive attitude towards any movement calculated to boost the horse business.

A Policy

It has recently been stressed that production has already far surpassed consumptive demand resulting in ruinously low prices for farm products. Inference is made that less efficiency in production, will, through reduction in the volume of production, bring higher farm prices and consequently greater farm profits. It is the belief of those engaged in the work herein reported, that no permanent improvement in the farm situation can ever result from decreased efficiency in production. If volume must be reduced, should not that reduction come through shorter hours or fewer producers or some other source? To reduce the efficiency of Nebraska livestock producers can only result in these livestock producers being surpassed by producers of similar products in other States or countries.

This report is compiled to serve as a permanent record of Nebraska animal husbandry extension activities during 1929. These activities have been specifically directed toward the advancement of better methods in livestock production. They are a portion of a long time program designed to increase livestock productive efficiency. It is to be hoped that happier and more prosperous (albeit perhaps less numerous) farm homes may result therefrom.

— Introduction to Nebraska Annual Report, 1929.

WHAT'S NEW IN THE STATES

West Virginia

R. S. Glasscock has been appointed assistant extension specialist in animal husbandry.

South Dakota

Gilbert S. Weaver, veterinary extension specialist, has also been assigned leadership in the animal husbandry extension project. Fred B. Willrett has been appointed assistant livestock specialist.

Idaho

J. E. Montgomery has been appointed assistant animal husbandry specialist.

Washington

Hector McDonald has been appointed extension animal husbandman to succeed J. K. Ford, resigned. Mr. McDonald formerly was on the college and station staff.

Michigan

L. H. Blakeslee, has been added to the animal husbandry extension staff for about half-time service in the upper peninsula of the State.

Nebraska

O. O. Waggener, leader in animal husbandry extension has resigned to accept a position as agricultural agent with the C.B. & Q. R.R. Co., with headquarters at Denver, Colo.

Missouri

J. W. Burch, leader in animal husbandry extension, will take a course in agricultural economics during the summer session at the University of Missouri.

North Dakota

Two hundred and five farmers and 4-H club livestock raisers have already entered animals in the five extension service livestock projects this year. Twenty-four counties are represented by this group which includes entries of hogs, sheep and cattle.

Four of the projects are of a competitive nature with awards for the winners, while the fifth has for its purpose the testing of sows to determine their relative profitableness in the economical production of pork. The five projects include a lamb production contest, a carlot baby beef contest, a ton-litter contest, a pork production contest and the sow-testing project.

Entries in the hog projects lead, with the greatest number in the ton-litter contest. Benson County, which took major honors in the ton-litter contest in 1929 by producing 17 litters weighing over a ton each, is leading in number of entries. In its winnings last year, Benson took several of the highest places in the contest, including first and second.

Number of entries in each contest are as follows: Ton-litter, 101; pork production, 21; lamb production, 30; and baby beef, 25. In the sow-testing project, 28 entries are in. -- S. G. Denner

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New York

A recent development in this State in the form of a problem in connection with the sheep industry is the spread of the disease known locally as "stiff lambs." This trouble has been considered an extension problem in that there seems to be a connection between it and the management of the flock. It is difficult to work on, however, through extension methods and is now taken on as a research problem by the New York State Veterinary College and the College of Agriculture at Ithaca.

The disease is not a new one. Some flock owners claim to have lost lambs with it as long as 25 years ago. Up to several years ago the trouble was confined largely to flocks in some counties in the central part of the State. Now there are sporadic appearances of it in other counties.

Lambs born in March and early April are the ones commonly affected. The trouble usually occurs when they are from 2 to 8 weeks of age. The flock may still be confined to the barn but most often

the presence of the disease is not observed until after the ewes and lambs have been turned to pasture. In the sections where stiff lambs are most common an average of 5 to 10 per cent of the lambs are affected. Some sheepmen report as high as 80 or 90 per cent stiff lambs.

The affected lambs first show a slight difficulty in rising and a stiffness usually in the hind legs. There appears to be no swelling, tenderness or evidence of pain. As the disease progresses, the lambs are unable to rise or stand, but the appetite remains good as a rule, unless other complications set in. The lambs suckle vigorously if held so as to reach the ewe's teats. Many lambs recover. It is thought that lambs which do not recover succumb as a result of starvation, pneumonia or similar causes.

Cultural examinations have been made in a number of cases. The veterinary college reports: "The negative results of the bacteriological work, also the histological changes in the diseased area, lead us to think that the disease is not due to infection."

It has been definitely established that changes in the tissues take place in the muscles in which stiffness is present. In mild cases the muscles were streaked with whitish lines which ran parallel with the fibers. In advanced cases portions or all of the muscles affected were whitish in color. There was also a tendency to affect muscles equally on both sides of the body. In advanced cases these muscular changes are readily observed, in dissected animals, with the naked eye.

Although the disease itself may not be one resulting in severe death losses, the stunting of growth in recovered lambs and those having only mild cases occasions a very considerable loss to the breeder. Sheepmen here are interested in the problem and are anxious to find a solution to it. They are willing cooperators and have kept records on practices, conducted feeding and management demonstrations and have furnished considerable laboratory material. They have been prompt in reporting outbreaks so that a study of the situation might be made.

Reports of a similar trouble in lambs have come from other States. It would be of interest to know how widespread this disease is. — W. T. Grams.

Connecticut

More than 600 people attended the twenty-first Annual Shearing

Contest and Field Day of the Connecticut Sheep Breeders' Association, held at Eastland Farms, Pomfret Center, Conn., on Saturday, May 10.

Five 4-H club lads competed in the hand-shearing class, the winner being Gilbert Hagan, Preston, Conn. In the amateur hand-shearing class Stanley Storrs, Storrs, Conn., won, shearing his grade Dorset ewe in five minutes. The open, machine-shearing class was won by Reginald Bolt, Brookfield Farm, Durham, Conn. The open hand-shearing class was won by Howard Foskett, East Woodstock, Conn. Excellent work was done in both these classes.

The State Championship class was won by Samuel Dorrance, a former 4-H sheep club lad, who is now handling a flock of 1500 ewes at Long Branch Farm, Bowdoinham, Maine. Sam has done a lot of shearing in Connecticut, paying a large part of his expenses at Connecticut Agricultural College in this way. Joe Pritchard, shepherd at the college, placed second in this class, closely followed by Walter Yale, last year's champion, Meriden, Conn.

C. V. B. Cushman, owner of Eastland Farms, provided lunch for all, and welcomed the guests. Mr. Willard S. Martin, president of the New England Sheep Breeders' Association, introduced Lieut. Governor E. E. Rogers of Connecticut, who is very much interested in sheep and gave a fine talk. S. McLean Buckingham, Commissioner of Agriculture, spoke on the need for cooperation in our livestock enterprises, and Mr. M. Z. Irish, president of the Dressed Meat and Wool Company, spoke on marketing.

W. B. Connell, Pennsylvania State College, was with us and did the judging with "Jimmie" Watson of the New England Homestead. Mr. Connell also judged the wool show.

Max Cullen, representing the National Livestock and Meat Board, certainly showed us all how to cut the lamb carcass in the proper way. His crown roasts, mock ducks and other cuts looked so palatable that "Jimmie" Watson had no trouble in auctioning them off after the demonstration. Mr. Cullen gave a very interesting and instructive talk along with his demonstration.

Joe Pritchard put on a demonstration sheep drive with his dog, Nell. Docking, castrating, dipping and post-mortem demonstrations were also given.

The 4-H sheep club lads from Windham County showed some of their purebred Dorset ewes and some grade Hampshires. Karakuls, both

ewes and lambs, were shown by Gwyn Careg Farm, Abington, Conn., and created a lot of interest.

It is interesting to note that most of the contestants in the shearing classes are 4-H club lads or former ones. There is a real place for sheep-club work in this State and the club members now have small flocks of purebred Dorsets, Cheviots, Shropshires, Southdowns and Leicesters. -- L. V. Tirrell.

Alabama

We have the railroad agricultural agents and field men of the breed associations lined up on our program and they are assisting us in holding meetings according to a definite schedule worked out jointly with them here at Auburn in January. We feel that this plan will avoid considerable duplication of work and should assist all of us in putting over a definite program. -- F. W. Burns.

A TOAST TO LAMB

The little lamb that Mary had
Was clad in snowy fleece,
And with that cozy covering
Its virtues seemed to cease.

But lambs that frisk about the fields
In old U. S. to-day,
Have more than fluffy fleeces
With which to win their way.

They feed on pastures plenteous
Of grass and clover sweet,
And build into their bodies
The tenderest of meat.

So here's to luscious leg o' lamb,
And lamb chops sweet and fine!
They tantalize the appetites
Of all who love to dine!

COLORADO HOG SLOGAN

"Feed them to grow, fit them to show, judge them and know."

BEEF-CATTLE IMPROVEMENT IN SOUTH GEORGIA

by
Kenneth E. Litton
Georgia State College of Agriculture

- - -

I will attempt in a brief way to point out some of the methods and results obtained in beef-cattle extension work in south Georgia. Let us bear in mind that beef-cattle improvement is relatively slow and concrete results do not appear quickly. A concentrated effort was started in 1927 to improve the quality of our native "piney woods" cattle. Up until that time the presence of ticks in several of the counties made the work very slow and hazardous. There had been but very little attention paid to breeding, feeding and management. The cattle ran at large on the open range and reproduced indiscriminately. Every few years the owners would sell out the 4 and 5-year-old steers for beef. This in brief was the situation.

The eradication of the cattle-fever tick was the first big step in beginning a definite improvement program. No doubt the building of good roads and tourist travel are having some effects. Due to the fact that a higher quality product is being demanded, a few men in different counties started using purebred bulls of one of the beef breeds. It was not long until the cattle produced by these men were known to packers and buyers. Their products were commanding a premium due to quality. A scattering few began raising purebred cattle to supply the demand for good sires. These men have done much for the cattle industry by furnishing good breeding animals raised under southern range conditions.

In most cases the work of improvement has been started by using purebred bulls on native females. This is the most economical way to start, since the only additional outlay in capital is for the bull. It nearly always pays to grow into any business rather than to buy in. In addition, the native cows are already acclimated.

The work of grading a herd up naturally offers an opportunity to put the enterprise on a calf basis. These calves are sold to the packers in the fall, while they carry their calf fat and bring as much then as the former 4-year-old steer. It is not uncommon on the local markets to see calves sired by good bulls selling for $5 to $10 more than their dams. Around 20,000 calves of this sort were sent to the larger eastern markets during the past year. The choice heifer calves are being kept to replace their scrub mothers. In this fashion it will not be many years until we will have many cow herds which are more uniform in color and conformation.

The increased demand for suitable bulls brought us to face with the problem of locating them in other sections since local breeders could not supply the demand. It was decided to bring these animals to one central point and let the stockmen select what they wanted. The first sale consisting of 100 bulls representing the three beef breeds was held in Moultrie in May, 1929. The sale cattle were gathered and shipped to Moultrie by the breed associations without any expense to the agencies cooperating in Georgia. This sale was not an auction but each individual animal had a card with his name, age, weight, and sale price up before him.

There have been three more sales at Moultrie and one at Waycross held in the same manner. As a result of these sales approximately 400 bulls have been placed with cattle owners, most of which never before owned a purebred sire.

For the last two years various counties have been interested in feeding cattle during the winter months on native Georgia-grown feeds. These demonstration feed lots have been the means of securing more information on feeds, desirable length of feeding period, and type of cattle best adapted for feeding home-grown feeds most economically. The principal feeds used are corn, velvet beans, cottonseed meal and hulls, and a roughage. There were approximately 30 loads of cattle on feed during the past winter under direct supervision of the extension forces.

Houston County has been very successful in this project. The following method is used by this county: The cattle are turned in the bean fields in October and allowed to clean them up. They are then put in the feedlot and fed velvet beans in the pod, slip-shucked corn, cottonseed meal, hulls and a hay. The cattle are usually fed around 100 days, depending on the type of cattle, amount of feed and market conditions. One pig weighing about 50 pounds is put in the feed lot for each 3 to 5 cattle. They usually don't require much additional feed until they are about ready for market.

The very beginning of a cattle industry is based on pasture crops and cheap roughages. The development of the beef cattle industry has resulted in more pasture crops being seeded, both permanent and temporary. During the last year over 2,000 acres were seeded to improved pasture. As far as possible we run breeding and pasture demonstrations together. They are both essential and should be carried on at the same time. By using the two in combination, these farms make excellent places to hold field meetings and discussions on all phases of the work right where it is being done.

PORK PRODUCTION IN KANSAS

by

C. G. Elling, Kansas Extension Service.

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Our pork-production project is a correlated one in which valuable cooperation has been received from extension men in the departments of farm accounting, farm planning and building, veterinary medicine, and animal husbandry.

In presenting the project to county agents and local leaders the cooperation of the district agents and L. C. Williams, in charge of agricultural specialists, was very effective.

The presentation of the project was accomplished by district schools, method-demonstration meetings, result-demonstration meetings, and county-wide round-up meetings. The district schools were held in December and attended by county agents and at least four influential hog raisers from each county. On an average eight counties attended each district school. Last December seven district schools were held and the county agents and 216 local leaders from 32 counties attended. Discussions of the various phases of pork production made up the one-day program and an explanation was made of the demonstrations which the local leaders were asked to conduct or have conducted in their respective communities.

In February and the first part of March method demonstrations were conducted; in May and June result demonstrations.

Method and result demonstrations were attended by central office extension men so far as time would permit, but in many cases the county agent, local leaders who attended the district schools, conducted these demonstrations. In August and September one round-up meeting per county was held.

Our objective centered around large, thrifty litters at weaning time and the use of efficient rations made up of home-grown feeds, taking into account the relative feeding value of hog feeds and their market price fluctuations.

Considered on a basis of the volume used, and that is usually in proportion to their efficiency, corn and tankage are taken for

granted as making up the major portion of all our hog rations. Occasionally other feeds can profitably be used, mostly because of lower-than-normal price levels and to add variety to the ration.

During the latter part of 1929 and the first of 1930 considerable amounts of the lower grades of wheat were used in hog rations. This was due to the relatively high corn prices and low wheat prices. Likewise shorts was used quite extensively in rations, particularly until the pigs weighed about one hundred pounds.

When wheat was used it was ground. The same is true of all small grain crops such as milo, kafir, feterita, etc.

For sows suckling pigs, 65 pounds of corn, 25 pounds of ground wheat or shorts, and 10 pounds of tankage was a popular combination last fall and is giving satisfactory results this spring.

The grinding of the wheat led in many cases to the grinding of the corn also, and the three feeds in the proportions mentioned above were mixed together and fed in a self-feeder, dry. This ration when self-fed to sows and pigs, after the pigs were four weeks old, gave excellent results. While the grinding of the corn by itself is usually considered hardly a profitable practice especially for young pigs, the mixture fed dry to brood sows with plenty of fresh water and either alfalfa hay or pasture also gave excellent results. The brood sows suckled their pigs well, produced a good volume of milk, and there was but little, if any, scouring of pigs that could be traced to the ration. Salt was also provided separately and continuously, after the sows were accustomed to it.

Where shorts was used in the ration, in which case grinding was unnecessary, two sacks of shorts were mixed with one sack of tankage and self-fed with either shelled or ear corn. Where this ration was used a steady, rapid gain was made by the pigs and the sows maintained a thrifty condition while suckling the pigs. By this method one cooperator, Bruce Wilson, of Keats, Kansas, marketed 50 fall-farrowed pigs from six sows at an average weight of 219 pounds at an average age of six months. The feed was counted from the time the pigs were three weeks old until they were marketed, but the feed for the sows after the pigs were weaned was not included. The amount of feed required for 100 pounds of pork was: Corn, 5-1/5 bushels; shorts, 37 pounds; tankage, 19 pounds, or a total of 348 pounds of feed for 100 pounds gain. Alfalfa hay was used and water provided by automatic hog waterers. The results obtained by Mr. Wilson are conservatively representative of those of other cooperators in Washington, Dickinson, Jackson, and other counties.

The main factors in the production of large thrifty litters at weaning time are the care of brood sows before farrowing, suitable farrowing quarters, personal attention until pigs are a week to ten days old, and the feeding of the sow for milk production, and grain-feeding of the pigs before weaning.

The ration for sows before farrowing can be of a varied nature provided that the protein supplement and exercise are given attention. Of the suitable protein supplements, tankage, skim milk and alfalfa in the form of hay, meal, or pasture are hard to beat for satisfactory results. Corn, well supplemented with protein, and fed so that sows will exercise in search of more feed to satisfy their appetites gave good results. At this time brood sows will give good returns on a variety of feeds produced on the farm some of which add bulk to the ration and are laxative. A ration made up of corn, oats, tankage, and alfalfa in approximately the following proportion gave good results. For seven sows the daily ration was approximately: Oats, 28 pounds; corn, 9 pounds; tankage, 1½ pounds; alfalfa hay, salt, and plenty of water. Corn alone, however, is not a complete ration for sows.

The advisability of feeding tankage, in the absence of skim milk, to brood sows is well substantiated when it is realized that 150 pounds tankage will supplement the ration for the sow and pigs from the date the sow is bred until the pigs, eight in the litter, are eight weeks old and that some form of animal protein is highly necessary during that time.

Suitable farrowing quarters center around the McLean County system. This, no doubt, is one of the greatest contributions to profitable pork production. There still remains the development of methods whereby this system can be most economically and conveniently put into use year after year. In several instances when sows were put on clean ground and neither the sows nor pigs allowed, during this time, to go to and from the old and new-ground locations, thrifty pigs were raised three years in succession on the same ground. If this can be generally relied upon it will simplify the yearly moving of colony houses and other equipment. In most cases when old hog lots and sheds have been vacated for three years they should be, practically speaking, new-ground locations, especially if the houses are thoroughly cleaned and scalded out with hot lye water.

The straw-loft feature of farrowing houses aids very materially in maintaining a desirable temperature and good ventilation. The straw-loft feature in itself is not expensive, raising the cost per farrowing quarter about $2.00 exclusive of labor. One cooperator had

seven sows to farrow and three straw-loft-type farrowing quarters. Six of the 7 sows farrowed in these three. The pigs were kept in them until from four days to a week old and then removed to other quarters to make room for another sow to farrow. Guard rails and a 7 x 16 foot pen on the south side of the shed are considered essential equipment.

Personal attention is that indescribable necessity which combines the various factors in successful brood sow and litter management and without which the best equipment is certain to fail.

"We are all fools until we know
That in the common plan
Nothing is worth the making
If it does not make the man.
Why build these temples glorious
If man unbuilded goes?
We build the world in vain
Unless the builder grows."
— Elbert Hubbard

"When my earthly trail is ended
And my final bacon curled
And the last great roundup's finished
At the Home Ranch of the world
I don't want no harps nor haloes,
Robes nor other dressed up things —
Let me ride the starry ranges
On a pinto hawse with wings!"
— Badger Clark

"To avoid criticism
Say nothing,
Do nothing,
Be nothing."

KENTUCKY ACCREDITED PUREBRED SHEEP BREEDERS ASSOCIATION

by

Richard C. Miller, Sheep Specialist,
College of Agriculture, University of Kentucky.

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The Kentucky Accredited Purebred Sheep Breeders Association is the outgrowth of a long-felt need on the part of the purebred sheep breeders of the Stateto protect this industry from inferior purebred sheep. The association, while only six years old, has in this short period in cooperation with the Extension Division of the College of Agriculture practically made over the purebbred sheep industry of the State.

The association, as its name implies, is strictly an organization of accredited purebred sheep breeders. It admits to membership only those breeders who have reached a high standard of perfection in their flocks, and continues them in the association only so long as they maintain such a standard. At the present time, a breeder who has twenty purebred registered females of approvdd quality and who has been breeding sheep for two years and is a member of a national registry association in good standing may be eligible for membership. Membership in the association, however, will be granted a breeder only after his flock has been carefully inspected by the secretary and approved by the executive committee of the association.

Each member is given a metal sign for his gate or barn which designates his flock as accredited for the year. The sign is changed annually. Beginning with the 1930 inspection both rams and ewes in accredited flocks that meet the association requirements will be tattooed with the official trade sign. This trade sign will be widely advertised and shepp raisers educated to look for it when purchasing sheep from accredited flocks. Only the tattooed animals can be sold as association sheep, and members of the association are prohibited from selling non-tattooed animals to breeders in other States. This system would have been put into operation earlier except for the fact it was necessary to work up to it gradually.

While the annual inspection of flocks requires considerable time it is absolutely essential for success with the accredited-flock system. The inspection causes the breeder to make a special effort to have his flock in good condition and gives the specialist an oppor-

tunity to point out faults in the flocks as to breed type and management and suggest methods for improvement. This is done both at the time of the visit and later in a letter to the breeder.

The association conducts annual sales at centers of sheep production throughout Kentucky. Approximately 1,000 purebreds produced by association members are sold annually through these sales. The sales are not confined entirely to home-bred sheep, however, as a limited number of choice individuals from breeders of other States are always welcome and are sold on the same basis as sheep consigned by members of the association. The organization has developed a considerable out-of-State trade. This association has been an important factor in weeding out a lot of inferior purebred sheep. It has placed a premium on superior individuals and has depreciated the price of the inferior kind.

The association has worked hand in hand with the University in every movement for sheep improvement work in the State. In 1928, in cooperation with the Extension Division, a plan was put on foot for assisting the small purebred breeder to become more familiar with his particular breed of sheep and with the breeding and management problems necessary for success as a breeder of purebred sheep. The breeder was given an opportunity to attend a four-day school, later to enroll in a reading course which was followed this year with another four-day school. These schools are held at centers of sheep production throughout the State. The breeder who completes two four-day schools and the reading course is entitled to the association certificate, a recognition for having completed a practical course in the breeding and management of sheep. Some 200 breeders were in attendance at these schools last year. This year the total attendance amounted to 740. Twenty-three breeders and extension leaders from Tennessee were present and several other States were represented.

The association looks forward to the time when these smaller breeders will have improved the quality of their flocks to such an extent that they can become members of the organization. The association advertises collectively, have their own standard motion pictures, and, in cooperation with the Kentucky Sheep and Wool Growers Association, publish their own magazine.

The dates for next year's school have been set for Monday, Tuesday, Wednesday, and Thursday, July 28 to 31. Three leading authorities from outside the State have already been engaged to assist the force from the College of Agriculture in conducting the 1930 school. All out-of-State visitors attending the school will be welcomed as guests of the association at their fifth annual banquet at the LaFayette Hotel the evening of July 31, 1930.

THE OHIO PORK PRODUCTION CLUB

by

John W. Wuichet, Ohio Extension Service.

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The Pork Production Club project is simply an outgrowth of the Ton-Litter Club and is designed to encourage better management practices for the entire herd. After 1930 the production project will entirely supplant the ton-litter work as an adult project in Ohio. We believe that the latter, after eight years of operation and with 98 ton litters produced last year, has served its usefulness in demonstrating the value of high unit production and that in the future more effort should be placed on herd production. It is probable, however, that the Ton-Litter Club will be continued as a junior project for students in Vocational Agriculture and 4-H Club members, but under the supervision of the swine specialist.

Ohio lays no claim to originality in the development of the project, except, perhaps, that we have eliminated the contest feature entirely while most of the States apparently operate the project as a contest. The Ohio plan establishes a goal and all who attain that goal receive exactly the same recognition. This takes the form of a medal presented to the cooperator at a banquet held during the annual Farmers' Week.

During the two years the project has been in use, the goal has been the production of an average of 1,400 pounds of pork per litter from a minimum of 5 sows. To some, this may seem to be a rather low standard, but when it is considered that it means an average of 7 pigs to the litter, each weighing 200 pounds at six months of age, the goal is not so easy to reach, particularly when ALL sows in the herd farrowing within a specified period must be included, whether 5 or a hundred. At least, it is probably close to double the average production for the State, and if any further excuse for such a low standard is necessary, it is because we believe that a project of this kind should appeal to a reasonably large number of possible cooperators. Up to the present, we have not been flooded with applications.

The summary of only one year's work is available, but that summary brought out some interesting data. One noticeable item was that all of the six herds qualifying went over the goal by 150 pounds or better per litter. At first thought this might seem to indicate that the standard was too low, but when we consider that less than 10 per cent of those participating in the project qualified, we are not convinced that such is the case. A still more in-

teresting item was the fact that the three largest herds made what would probably be considered the best records.

One man with 16 sows had an official weight of 1,810 pounds per litter; another with 10 sows showed an official weight of only 1,634 pounds but his pigs were weighed at 164 days of age. Had his pigs been fed the full time and an allowance of 1-3/4 pounds per day per pig been made for the remaining 16 days, his litter average would have been 1,869 pounds. The third, a purebred breeder with 8 sows, sold 13 pigs at weaning time. Even with these pigs eliminated, his litter average was 1,676 pounds, but had they been retained in the herd and average in weight with the other pigs, his record would have been better than 2,000 pounds per litter.

The other three men qualifying had five sows each but their records were all below those cited. It would seem from these data that we may have to revise the prevailing opinion that the larger the herd, the less change there is for high average production. Of course, we realize that in the language of the more extensive hog-producing States, none of the herds mentioned might be classified as large, yet, relatively, the situation should be comparable.

With the abandonment of the Ton-Litter Club in 1931, it is probable that the requirement for the minimum-sized herd will be reduced from 5 to 3, in which case a separate classification will be made for herds of 3 to 4 sows. Since about 50 per cent of the hogs produced in Ohio are from herds of less than 5 sows, we feel that such an addition is advisable.

If after eight years of the herd project we can report as much progress as apparently was made by the litter project in the same length of time, we will be much gratified.

Animal Husbandry Meeting at Miles City, Mont.

A conference of livestock workers and others interested in range animal husbandry problems will be held at the United States Range Livestock Experiment Station, Miles City, Mont., August 18 to 20. A portion of the program will be devoted to the annual meeting of the western section of the American Society of Animal Production, under the leadership of Dean J. A. Hill of Wyoming. All animal husbandry workers are especially invited to attend.

Illinois Method of Teaching Subject Matter

Farmers appreciate new methods if they see results. They are slow to be convinced by argument. We hold very few general meetings on any subject until a few local farmers have obtained results to use for illustration. Then the farming public is invited to see for themselves. About three-fourths of the specialist's time in the field was spent in coaching farm advisers and their local leaders for demonstration work. Farm meetings and county tours were used to spread information among other farmers. These were supplemented by general meetings, correspondence, and press articles. In some cases a general invitation was extended to other stockmen to attend the schools of instruction for farm advisers and local leaders.

Local leaders are selected to stage demonstrations. We have had the best of success in pushing project work by this plan. The leaders are coached regarding details and methods. Other farmers learn by seeing results. Imitation leads some farmers to follow the new methods. Jealousy spurs others to grasp for a share of the evident success which the local leader has achieved. All gain assurance of success and confidence in their own ability by watching the accomplishments of the local leader.

Young men usually make the best leaders. The selection should be confined to those who are already "good farmers" in general, and who desire to improve in the particular line to be demonstrated.

The farm advisers have proved to be much the best means of contact with farmers in livestock projects. They select the farmers to demonstrate each project, arrange schools for their instruction, check up on their work, and hold farm meetings and county tours of farms to show results. Even when local committees are appointed to arrange these activities, it is generally the farm adviser who carries the responsibility of getting the work done.

The farm advisers arrange for most of the other livestock extension work in their counties, such as assistance to boys' clubs, county fairs, and farmers' institutes. Farm advisers and Smith-Hughes high-school agriculture teachers cooperate with the Animal Husbandry Department to train and bring in boys to compete in the annual State judging contests at the University. The specialist gives assistance to high schools, farmers' institutes, fairs, breed associations, and the Illinois Agricultural Association.

-- From Illinois Annual Report, 1929.

REPORT OF COMMITTEE ON EXTENSION METHODS

The following is the report of the committee on extension methods of the American Society of Animal Production, which was presented and adopted at the annual meeting at Chicago, November 30, 1929.

"We are of the opinion that successful methods of extension teaching should include activities which are farmer proposed, farmer planned, and farmer executed; and that while living through these activities with the careful guidance of the county agent and specialist, farmers will acquire useful information, good habits of work, high standards, desirable attitudes, and enlarged interests concerning the industry in which they are engaged.

The extension worker is in no less degree a teacher than is the resident instructor. His responsibility is greater than that of merely knowing his subject matter. He must be able to definitely influence groups of people with a common problem to improve their situation by adopting recommended practices. The degree to which he can do this rather than his subject-matter knowledge very largely determines his success.

True extension teaching means habit changing. Hence, it involves activity. There must be a real want or desire on the part of the farmer. The recommended practice, directly or indirectly, must fulfill this want before any general acceptance of teaching will be brought about. The satisfaction that follows the adoption of the practice must be the prime dependence in keeping the cooperator "sold." It is, therefore, important to correctly diagnose the problem and to know that the solution offered will satisfy the existing want.

It is, therefore, recommended that methods of extension teaching be based on the following:

1. Formulating the Program.- Due consideration should be given the relative economic importance of various existing problems and the feasibility of their practical solution under existing conditions. The program may well be developed with the advice and council of county-agent representatives, other extension workers, livestock-organization officials, and other groups whose cooperation will aid in carrying it out.

2. Isolating the Problem.- The problem should be determined in cooperation with representatives of the group to be worked with. It is best to start with problems that can be solved by the application

of a single practice. More complex problems may follow. Here it is advised to enlist the cooperation of other subject-matter specialists such as those in the field of agricultural economics, crop production, and other lines directly related to livestock production. In some cases it may be necessary to make a survey or use farm-record data to emphasize what the important problems are.

3. Finding the Solution.- In arriving at the solution of a problem it is necessary to know that sufficient research information is available to insure that the practice to be recommended will solve the problem. Consideration should be given to the ease with which farmers may procure materials involved in the advocated practice such as feed, animals, equipment, and so forth, as acceptance of the practice will be largely determined by this factor. Simple practice recommendations, everything else equal, will be accepted more generally than more complex ones.

4. Setting Up the Project.- A project should be set up in cooperation with local leaders, although a project may be tentatively outlined before submitting it to them, but only for the purpose of saving time. Every effort should be made to convert leaders to the soundness of the plan in order that they may support it with vigor.

5. Proving that the Project Pays.- Proving that the project pays is accomplished by carefully selected and advantageously located demonstrations. All essentials to the success of the project should be provided and constant supervision given to carrying out all recommendations. Convincing demonstrations are the basis of all successful extension work and therefore should be given the best thought and careful attention of all agencies.

6. Extending Proof to Community.

7. Getting Practice Generally Adopted.

These two phases are so interrelated that it difficult to consider them as separate items. They offer the greatest challenge to all extension workers, for a problem may be isolated, a solution found, a project set up, and demonstrations made, but if proof of its worth is not extended to the masses of people in such a way as to obtain adoption of the practice the real goal has not been achieved.

It is in this stage of extension teaching that a knowledge of practical psychology, of human behavior is essential. It is here that the formula "Want-Solution-Action-Satisfaction" has its larger application. Appeals to wants are more effective in moving the masses than are appeals to reason. Solutions offered must fulfill

some prevailing want or desire and bring satisfaction, or anticipated results will not be obtained--practices will not be permanently changed.

The first intent should be to get the farmer to recognize that the recommended practice is an answer to the existing want. Then follows the actual teaching of how to apply the practice successfully.

The various means and agencies available for bringing this about are numerous and varied and involve the use of meetings, news items, publications, tours, exhibits, motion pictures, radio, circular letters, slogan and poster contests, and so forth.

In all cases in which a major project is involved it is recommended that a work chart be prepared as a guide in conducting the effort. Such a chart should include the different means and agencies to be employed with approximate dates of their use.

In general it may be stated that extension results will be improved by a clearer understanding by extension workers of their responsibilities as teachers as well as a better working knowledge of the fundamentals of successful teaching."

Big Team Hitches

Nebraska farmers are still interested in horses. To this machine-mad-world, that statement must seem like considerable of a novelty. The proof lies in the fact that 1,123 left their fields during the busy plowing season to attend one of the 22 hitch demonstrations staged under the direction of the Extension Service of the College of Agriculture.

Many believed that to attempt to hitch as many as 12 or 14 strange horses into one team and drive them with only two lines was next to impossible. But those who "came to scoff" for the most part "remained to pray" for not only were hitches of that size made but they were driven with only two lines, and each horse, whether fast or slow, was forced to pull his honest share -- no more and no less. Of the 242 different horses hitched into the 81 different units and worked on as many different machines, not a single accident or runaway was experienced.

-- From Nebraska Annual Report, 1929.

RECENT PUBLICATIONS

"More Wool from Fewer Sheep", by Joseph W. Wilson - Nevada Extension Service Bulletin No. 66.

"Economic Aspects of the Sheep Industry", by Voorhies and Schneider - California Experiment Station Bulletin No. 473.

"Cost of Producing Sheep on Western Oregon Farms", by O. M. Nelson - Oregon Experiment Station Circular No. 94.

"Lambs - Saving a Larger Harvest", by C. M. Hubbard - Washington Extension Service Bulletin No. 143.

"Karakul Sheep", by Lush, Jones, and Dickson - Texas Experiment Station Bulletin No. 405.

"Sheep", by Archer B. Gilfillan - A book obtainable through The American Sheep Breeder, Union Stock Yards, Chicago.

"Selection and Feeding of Beef Calves," by L. H. Rochford - Colorado Extension Service Circular No. 1013.

"Normal Growth of Range Cattle," by Lush, Jones, Domeron, and Carpenter - Texas Experiment Station Bulletin No. 409.

"The Fourth Annual Minnesota Carload Baby Beef Contest", by W. E. Morris - Minnesota Extension Service Pamphlet No. 11.

"Range Beef Production in the Seventeen Western States," by Fred S. Haltz - A book published by John Wiley & Sons, New York City.

"Growth Studies with Swine," by Longwell, Henderson, and Insko- West Virginia Experiment Station Bulletin No. 230.

"Cottonseed Meal as a Feed for Hogs", by Fred Hale - Texas Experiment Station Bulletin No. 410.

"Pork Production in Alabama", by Burns and Sugg - Alabama Extension Service Circular No. 101.

"The Burlington Profitable Pork Special", - Agricultural Development, C. B. & Q. R.R. Co., Chicago, Ill.

"Big Teams on Illinois Farms", by E. T. Robbins - Illinois Experiment Station Circular No. 355.

"The Horse Situation on New Hampshire Farms", by M. F. Abell - New Hampshire Experiment Station Circular No. 31.

"Livestock Truckage Rates in Illinois", by R. C. Ashby - Illinois Experiment Station Bulletin No. 342.

"Permanent Pastures Can Be Improved", by Mortimer and Richards - Wisconsin Experiment Station Bulletin No. 414.

"Marketing Purebred Livestock", by M. N. Beeler - A book published by The Macmillan Co., New York City.

CONSIDER OTHERS

Real success means gaining the cooperation of others. To sow gratitude and loyalty and affection brings a crop of able assistants. You can never tell when they will do you a good turn. No man of sense needlessly creates ill will. Even a wounded rat will bite and a crushed bee will sting. The best part of any man's business achievement is the kindly feelings he has created in others. Pushing and goring and jolting is not efficiency. It is plain rudeness. It is stupid

The first and greatest rule in life is: Consider others. Most of the joy of life comes from the way others treat you and from their feelings toward you. And as with anything else, if you want that, you must pay for it. Pay for it in courtesy, thoughtfulness, generosity, toleration, charity, and love. This sort of coin is good, not only in Sunday school but in the workshop and on the farm. You get what you give in this world. Reaction is equal to action. Consider others and they will consider you. Brush by, knock 'em down, crowd ahead, kick, gouge, and elbow your way to the front, and somebody will be there to hand you a few choice knocks that will take the joy out of life.

It is a good thing to count the cost, to estimate not only how much money and fame you are going to make, but how much hate you are going to acquire, how many enemies you are going to raise up, and how many of your fellowmen will be glad when you are dead.

Print it in large letters and hang it up on your wall: CONSIDER OTHERS. -- Dr. Frank Crane.